

WHAT IS CLAIMED IS:

1. A method for risk analysis under uncertainty, the method comprising the steps of:
  - capturing assumptions to create a scenario for one or more products for one or more time planning periods;
  - 5 specifying a component plan to be analyzed, the component plan identifying the quantities of each component that are positioned for each planning period;
  - submitting a request for analysis to an analytic engine for calculation of risk and performance indicators, the request for analysis including one or more analysis parameters and identifying the scenario and component plan; .
- 10 2. A method as recited in claim 1 that further comprises the steps of:
  - calculating one or more risk and performance indicators;
  - returning the risk and performance indicators; and
  - storing the risk and performance indicators in a database or other persistent storage system.
- 15 3. A method as recited in claim 1 that further comprises the steps of:
  - specifying one or more component consumption requirements for one or more products;
  - specifying one or more component parameters;
  - specifying one or more product interactions; and
  - 20 specifying one or more product parameters.

4. A method as recited in claim 1 that further comprises the steps of:

retrieving the scenario and component plan from a database or other persistent storage system;

constructing a message including the analysis parameters, the scenario and the component plan; and

sending the message to an analytic engine.

5. A method as recited in claim 2 that further comprises the step of presenting the results to the user.

6. A method as recited in claim 3 that further comprises the step of storing the one or more component requirements, component parameters, product interactions and product parameters in a database or other persistent storage system.

7. A method as recited in claim 5 that further comprises the step of retrieving at least part of the component plan from a database or other persistent storage system.

8. A method as recited in claim 5 that further comprises the step of retrieving at least part of the component plan from an external ERP, SCM, or planning Systems.

9. A data storage medium having machine-readable code stored thereon, the machine-readable code comprising instructions executable by an array of logic elements, the instructions defining a method comprising the steps of:

capturing assumptions about products and components to create a scenario, the scenario describing the demand, financial, and operational information for one or more products and components for one or more time planning periods;

specifying a component plan to be analyzed, the component plan identifying the quantities of each component that will be used or procured during each planning period;

generating a request for analysis, the request for analysis including one or more analysis parameters and identifying the scenario and component plan; and

submitting the request for analysis to an analytic engine for calculation of risk and performance indicators.

10. A data storage medium as recited in claim 9 wherein the method further comprises the steps of:

calculating one or more risk and performance indicators, and

returning the risk and performance indicators.

11. A data storage medium as recited in claim 10 wherein the method further comprises the step of storing the risk and performance indicators in a database or other persistent storage system.

12. A data storage medium as recited in claim 9 wherein the method further comprises the steps of:

specifying one or more component requirements;

specifying one or more component parameters;

5 specifying one or more product interactions; and

specifying one or more product parameters.

13. A data storage medium as recited in claim 12 wherein the method further comprises the step of storing the one or more component requirements, component parameters, product interactions and product parameters in a database or other persistent storage system.

10 14. A data storage medium as recited in claim 9 wherein the method further comprises the steps of:

specifying a component plan;

specifying levels for each component included in the component plan; and

storing the component plan in a database or other persistent storage system.

15 15. A data storage medium as recited in claim 9

wherein the method further comprises the steps of:

retrieving the scenario and component plan from a database or other persistent storage system;

20 constructing a message including the analysis parameters, the scenario and the component plan; and

sending the message to an analytic engine.

16. An system for performing risk analysis under uncertainty, the system comprising:

a user interface configured to allow a user to:

capture assumptions about products and components to create a scenario, the scenario describing the demand, financial, and operational information for one or more products and components for one or more time planning periods; and

specify a component plan to be analyzed, the component plan identifying the quantities of each component that will be used or procured during each planning period; and

an application server configured to:

generate a request for analysis, the request for analysis including one or more analysis parameters and identifying the scenario and component plan; and

submit the request for analysis to an analytic engine for calculation of risk and performance indicators.

17. A system as recited in claim 16 wherein the user interface is configured to allow a user to:

specify one or more component requirements;

specify one or more component parameters;

specify one or more product interactions; and

specify one or more product parameters.

18. A system as recited in claim 17 wherein the application server is configured to store the one or more component requirements, component parameters, product interactions and product parameters in a database or other persistent storage system.

19. A system as recited in claim 16 wherein the user interface is configured to allow a user to:

5 specify a component plan; and

specify levels for each component included in the component plan.

20. A system as recited in claim 19 wherein the application server is configured to store the component plan in a database or other persistent storage system.

21. A system as recited in claim 19 wherein the application server is configured to store the component plan in a database or other persistent storage system.

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construct a message including the analysis parameters, the scenario and the element plan; and

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